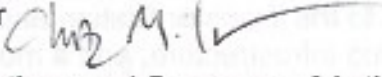


TO: Montgomery County Executive Marc Elrich  
Montgomery County Council

FROM: Montgomery County Integrated Waste Systems Strategic Task Force/Zero  
Waste and Strategic Plan Task Force  
Chaz Miller, Chair 

SUBJECT: Recommendations and Summary of Activities

DATE: May 7, 2020

**Executive Summary:**

This document summarizes the work and recommendations of Montgomery County's Integrated Waste Systems Strategic Plan Task Force/Zero Waste and Strategic Plan Task Force ("Task Force"). The Task Force was formed in May, 2018 to "provide advice and guidance on how best to maximize waste reduction, reuse, recycling, and sustainable management of all materials across the entire integrated waste management system, including all programs, facilities, operations, initiatives and services."<sup>1</sup>

In developing its recommendations, the Task Force also evaluated those actions the County and the Council will need to consider, assuming the County Executive recommends closing the Resource Recovery Facility (RRF) as part of the proposed update of the County's Comprehensive Solid Waste Management Plan. That facility's contract expires in 2026. If the Plan forwarded to the Council includes closure of the RRF, the County Council, which is responsible for approving this policy change to that Plan, will need additional analysis of the costs and benefits of changing the County's primary waste disposal before making such a decision. If closure is approved by the Council, the County will need to move forward expeditiously with all of the transition work needed to meet a 2026 closure date.

The following is a summary of the Task Force's final recommendations:

The Council will need an analysis of additional diversion of recyclables and organics achievable by 2026 in order to properly calculate the amount of material going to disposal in 2026 and succeeding years. In addition, in order to make the best determination of alternative disposal options, the County should expand the analysis of the environmental impact of disposal that was undertaken in the HDR study along with an analysis of health and social justice issues related to potential alternatives.

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<sup>1</sup> Memorandum to Hans Riemer, President, Montgomery County Council to Isiah Leggett, County Executive, Subject: Task Force on County's Integrated Waste System Strategic Plan", dated May 30, 2018.

Finally, the Council will need to analyze potential impacts of all of these various strategies on the Solid Waste Charges.

To ensure a successful transition to land disposal, the County staff will need to design, and the County Council will need to approve, funding of additional infrastructure including changes to the Transfer Station and Recycling Center, a new organics collection and processing infrastructure, and a modified transportation system to ship county waste to an alternate disposal site. Individually, each of these is a multi-year project. To meet the 2026 timeline, Montgomery County will need to begin work on several major projects in FY 2021 and sustain those efforts and funding through completion.

These projects include the following:

- Upgrading the County's available recycling processing capacity is a critical priority. The current facility has not been upgraded in two decades, yet the volumes and composition of materials collected for recycling have changed dramatically as has processing technology. County staff and the County Council can choose to upgrade capacity by rebuilding the current facility, siting a new facility, increasing contracts for capacity outside of the County, or some combination of those options. However, the Task Force views this upgrade as foundational to making any significant progress in towards achieving improvements to the County's collection, recycling and diversion goals.
- Mandating residential and commercial collection and diversion of organics including funding pilots and pursuing innovative public private partnerships for both in the FY2021 budget. Organics represent 43 percent of the waste generated in the County.
- Continuing funding of source reduction activities.
- Increasing collection and recycling of cardboard boxes which constitute 29 percent of the paper generated in the county.
- Increasing recycling rates for construction and demolition waste and enforcement of those requirements along with promoting salvage and reuse markets.
- Expanding recycling education efforts and increasing enforcement of recycling requirements to ensure that County residents recycle correctly.
- Adopting pay-as-you-throw as part of the funding mechanism in conjunction with the county Solid Waste Charges.
- Consolidating Subdistrict B residential waste collection services with those in Subdistrict A to increase uniformity in residential waste and recycling service provision throughout Montgomery County

The process by which the Task Force came to these recommendations as well as a more complete discussion of each recommendation is included in this memorandum.

**Introduction:**



The Task Force believes that Montgomery County has one of the best recycling programs in the country. However, it can and must improve. Doing so should be part of a larger sustainable materials management program that does not rely on recycling alone for addressing the County's needs. We must consider and take action to reduce what enters the recycling and waste disposal streams through source reduction and reuse opportunities along with organic recovery options such as composting, anaerobic digestion and other means for managing organic wastes. This is particularly true if the County is to advance closer to Zero Waste and to decrease its reliance on disposal.

Montgomery County had a 56.99 percent recycling rate in FY 2019 and a diversion rate of 61.99 percent under the methodology in the Maryland Recycling Act (MRA).<sup>2</sup> The recycling rate includes more than 150,000 tons of ash from the RRF that is beneficially reused and considered recycled under the MRA. This adds 14.99 percent to the County's recycling rate. The diversion rate includes a 5 percent "source reduction credit". Without ash recycling and the source reduction credit, Montgomery County has a recycling rate of 42.65 percent. Construction and demolition recycling is not included in those rates. Montgomery County's current recycling goal, which includes ash and the source reduction credit, is 70 percent by 2020. The County is not likely to reach that goal.

We discussed what could be an achievable goal for recovery when our recommendations are implemented. We did not set a target, although based on the results of the benchmarking study (see below), achieving a 60 percent recycling and organics recovery rate would rank Montgomery County at the top of North American programs. That 60 rate does not include either the beneficial reuse or RRF ash or the source reduction credit. This is an aspirational rate based on current and potential participation, collection and processing technology for both recyclables and organics. No North American jurisdictions have achieved this goal, although one is very close.<sup>3</sup>

Nor will it happen immediately. Success depends upon a number of factors including:

- Awareness and education programs that result in behavioral change
- Changes in the County's processing capabilities which will require capital improvements to equipment and facilities.

Both will take time and investment of County funds. To succeed, the County must shoot for excellence and persevere through a steady increase in recycling and organics recovery. This is a major challenge, but is one the County can and must achieve.

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<sup>2</sup> MDE provides information on recycling rate and diversion rate calculation at: <https://mde.maryland.gov/programs/LAND/RecyclingandOperationsprogram/Pages/recyclingrates.aspx>. The FY2019 data cited above was provided by DEP.

<sup>3</sup> Comparing recycling rates across the county and between nearby jurisdictions can be highly misleading. No standard uniform system exists for calculating these rates or for what materials and actions are included. As a result, it is important to understand how each jurisdiction calculates its recycling and diversion rates in order to make a real world comparison.

## **Background:**

On May 31, 2018, County Executive Isiah Leggett appointed a seven-member Task Force to *“work closely with the Department of Environmental Protection (DEP) throughout the strategic planning process to provide advice and guidance on how best to maximize waste reduction, reuse, recycling, and sustainable management of all materials across the entire integrated waste management system, including all programs, facilities, operations, initiatives, and services...The overarching goal is to set the course for sustainable materials management across the integrated waste management system for the next 25 years.”*<sup>4</sup>

Task Force members have a broad range of experience and expertise in issues and programs relevant to the County’s integrated solid waste management program. The County Council added an ex-officio non-voting member to this group. Task Force members are:

Sara Bixby  
Peter Ettinger  
Lauren Greenwood  
Ken Lavish  
Keith Levchenko (ex-officio)  
Chaz Miller  
Caroline Taylor  
Robin Wiener

At our first meeting, the Task Force elected Chaz Miller to be its Chair.

## **Meetings and Presentations:**

The Task Force met 16 times, starting on June 6, 2018 and ending on April 15, 2020. We started with a thorough explanation by DEP staff of the existing recycling and solid waste operations. Task Force members also toured the county’s solid waste and recycling infrastructure including the transfer station, recycling facilities, composting, and resource recovery facilities. The Task Force also received an assessment of the physical status and operating conditions of those facilities from HDR, the consulting firm that drafted the report on “The Future of Responsible Waste Management in Montgomery County” for DEP. HDR’s output, provided in a series of task reports, also included recommendations for improving those conditions. A major part of the Task Force’s work effort was to provide input to HDR and DEP on the draft HDR task reports before they were finalized.

The Aiming for Zero Waste web site at <https://www.montgomerycountymd.gov/SWS/master-plan.html> has a complete list of

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<sup>4</sup> Leggett transmittal memorandum May 30, 2018



Task Reports from HDR, meeting minutes, presentations including power points from Task Force meetings and other relevant resources.

The Task Force heard presentations on

- The results of the benchmarking study.
- "Pay-As-You-Throw" systems in which residents pay for waste and recycling services, based, in part, on the amount of material they separate for recycling and organics recovery.
- Takoma Park's food waste collection system.
- EPA's Waste Reduction Model and the "Measuring Environmental Efficiency Calculator" for an understanding of ways to look at the environmental impact of different waste management, recycling and organics recovery technologies.
- Biogas systems such as anaerobic digestion of organics and organics composting such as the in-vessel aerated static pile (positive aeration system) such as that used in Prince Georges County.

The Task Force provided Montgomery County DEP with extensive comments and recommendations in response to the delivery of the following reports by HDR:

- Task Two: North American local government recycling and organics recovery programs to be used as benchmarks for Montgomery County's recovery efforts
- Task Three: Stakeholder, Citizen and Expert Engagement Plan
- Task Four: logos and branding
- Task Five: improvements to the current diversion/recycling system outline
- Task Eight: review of existing facilities
- Task Nine: "what to do with what's left"

Task Two, the benchmarking exercise, was particularly illuminating. The Task Force selected five local governments: Austin, TX, King County, WA, Minneapolis, MN, San Francisco, CA, and Toronto, ON. Those five programs were chosen because they provide a good demographic comparison with Montgomery County and because of their reputation for successful recycling programs. The goal was to compare waste management services and techniques used to increase recovery in the County with those in the benchmark communities. Of course, none of the communities, including Montgomery County, had identical programs. In particular, the County did not have pay-as-you-throw or an organics recovery program and used dual stream to collect recyclables. The contractor was tasked with creating an "apples to apples" comparison, using the Maryland Recycling Act methodology for determining a recovery rate excluding source reduction points. The results were revealing. Montgomery County's Calculated Recycling rate was 55.9 percent. Austin was 45.4 percent, King County, 59.6 percent, Minneapolis, 45.4 percent, San Francisco, 47.5 percent and Toronto, 48.1 percent. Subtracting ash recycling lowers Montgomery County to 41.9 percent.

In the review of Task Five, improvements to the current diversion/recycling system, education and enforcement, Pay-As-You-Throw, food waste recovery and consolidation



of Subdistrict B emerged as key strategies deserving additional analysis by HDR. A reuse center, textile recycling, multi-family recovery and C&D debris separation and recovery also emerged as areas worth additional consideration. The Task Force voted unanimously to support continuing to collect recyclables in a dual stream system. It was also clear from Task Eight, review of existing facilities, that the Shady Grove Recycling Facility desperately needs modernizing.

#### **Final Recommendations:**

##### **Proposed Closure of the Resource Recovery Facility by 2026**

Closing the Resource Recovery Facility by 2026, as proposed by the County Executive, poses a significant challenge for Montgomery County. The County Council, which is responsible for approving this policy change to the County's Comprehensive Solid Waste Management Plan, will need additional analysis of the costs and benefits of changing the County's primary waste disposal. If approved by the Council, the County will need to move forward expeditiously with all of the transition work needed to meet a 2026 closure date.

Recommendation: The Council will need an analysis of additional diversion of recyclables and organics achievable by 2026 in order to properly calculate the amount of material going to disposal in 2026 and succeeding years. In addition, in order to make the best determination of alternative disposal options, the County should expand the analysis of the environmental impact of disposal that was undertaken in the HDR study along with an analysis of health and social justice issues related to potential alternatives. Finally, the Council will need to analyze potential impacts of all of these various strategies on the Solid Waste Charges.

To ensure a successful transition to land disposal, the County staff will need to design, and the County Council will need to approve, funding of additional infrastructure including changes to the Transfer Station and Recycling Center, a new organics collection and processing infrastructure, and a modified transportation system to ship county waste to an alternate disposal site. Individually, each of these is a multi-year project. To meet the 2026 timeline, Montgomery County will need to begin work on several major projects in FY 2021 and sustain those efforts and funding through completion.

##### **Address Processing Facility (MRF) Needs**

The existing MRF is 20 years old and out-of-date. It could be retrofitted or replaced by a new facility. Failure to take action will jeopardize the County's recycling programs.

Recommendation: Addressing MRF needs is a critical priority. County staff should determine which option is best in terms of cost and timing. The County Council and Executive must make this facility a priority.

## **Organics**

Organics recovery, with an emphasis on food waste, is essential for decreasing disposal. Both mandatory residential and commercial food waste separation requirements are necessary as is processing capacity. The proposed budget includes funding for both commercial and residential organics recovery pilots.

Recommendation: The County Council should fund the pilot programs. It should require mandatory residential and commercial organics collection and diversion while ensuring a processing infrastructure is being developed. These steps can be taken in parallel with the pilot program.

## **Source Reduction**

The Draft of Task Nine listed a number of source reduction activities at the top of the timeline (see Figure 2-1, page 3 of the Draft Task Nine). These include a food waste reduction campaign, a ReUse center and several other options.

Recommendation: Montgomery County should proceed with the recommendations of HDR Task 9, Figure 2-1, pages 3-4, which include numerous source reduction planning and implementation efforts. These efforts will lower the size of the waste stream while increasing awareness of the importance of creating less waste.

## **Increased Recycling of OCC**

Cardboard boxes (known as Old Corrugated Containers, or "OCC" in the recycling industry) are one of the most common paper products found in households. They are also one of the more valuable recyclables, easily recoverable through Montgomery County's dual stream collection program. Recycling of this product can be increased through targeted education efforts.

Recommendation: A targeted education campaign explaining to residents the ease and importance of recycling cardboard boxes.

## **Construction & Demolition (C&D) Waste**

Construction and demolition waste represents 20 percent, by weight, of the waste generated in Montgomery County. Source reduction measures, as well as enhanced recycling and reuse programs, are a critical part of our waste reduction efforts, would reduce greenhouse gas emissions and create jobs in the reuse and salvage industries.

Recommendation: Montgomery County should adopt appropriate ordinances to require higher C&D diversion rates than currently exist and promote C&D salvage and reuse markets through education of the building community.

## **Education & enforcement**



Education and enforcement are crucial to increasing participation and lowering contamination. The County completed an enforcement pilot program which through the use of educational flyers, recycle bin inspections, and warning notices, reduced contamination from 40 percent to 20 percent

**Recommendation:** Montgomery County should expand its education and enforcement efforts based on the results of the pilot program. This will include additional FTEs to aid in enforcement. The County needs to continue to update and expand its education efforts to ensure that all county residents can recycle correctly. In addition, the County should explore efforts to work with non-profits and other groups to enhance recycling education efforts.

### **Pay-As-You-Throw**

“Pay-as-you-throw” payment systems have proven effective in increasing recycling and organics recovery and reducing the amount of material sent to disposal. This will require modifications to Montgomery County’s existing Solid Waste Fee. That fee can continue to provide a financially secure base for fixed costs while also requiring generators to pay variable fees that reflect the amount of material disposed. Making this change will require a study of how to create a new system that will both encourage more recovery and less waste while preserving the county’s ability to have a financially secure base.

**Recommendation:** Montgomery County should institute a pay-as-you-throw system as part of the Solid Waste Charges. It is further recommended implementing the system with an emphasis on its ability to increase recycling and organics recovery and lower waste generation.

### **Subdistrict B**

A majority of Montgomery County residents now live in Subdistrict B. Failure to have a unified waste and recycling collection system hampers overall progress toward zero waste goals.

**Recommendation:** Montgomery County should consolidate Subdistrict B with Subdistrict A in order to have a uniform waste and recycling system in the county that optimizes recovery potential.